Q2-3

This document is an abbreviation of the AZO pigment PPE assessment. The PPE assessment is a 110 page document covering many more tasks than required to respond to the EPA Question 3, 10/15/2003 letter

**CERTIFICATION OF HAZARD ASSESSMENT FOR AZO PIGMENTS PLANT PPE RECOMENDATIONS**

**Assessments Included Under This Cover:**

General Plant PPE
Batchmaker PPE
Operator PPE
Maintenance PPE
QC Lab PPE

Clariant has assessed it's Azo Pigments department regarding the need for PPE. From 12/10/98 through 6/12/99 Paul Dickinson, the department ESHA Engineer evaluated the hazards present or likely to be present which necessitate the use of PPE. He has recently surveyed areas, jobs, tasks, etc. in Azo, and at other times surveyed each of the areas, jobs, and tasks etc. found in the building. Where we believe PPE is necessary, we have selected the relevant products to afford the proper level and type of protection. We have communicated, verbally and in writing, the selection decisions to each affected employee, and the assessment found under this cover are accessible to all Azo employees via the Azo Touch Screen system. We will continually reassess hazards (and the need for PPE) by identifying and evaluating new equipment and processes, reviewing accident records, and reevaluating the suitability of previously selected PPE.

Last Update - 7/19/02

Paul
Dickinson

Q2-4

# REDACTED SECTION

# TSCA CONFIDENTIAL BUSINESS INFORMATION

Q2-5

# REDACTED SECTION

# TSCA CONFIDENTIAL BUSINESS INFORMATION

02-6

# RTK Training and Process Overview Session for Addenda for Red 144 and Red 214

**RTK Section:**

**I. Polychlorinated Bi Phenyls** Common names PCB, Polychlorinated di-phenyl and trade named various Arochlors. Currently most found in Red 144 and Red 214 are in the tetrachloro family of PCB meaning that they have 4 chlorine atoms attached to each molecule of PCB.

**Appearance and Odor:** Pure material is a solid or a liquid at room temperature. The expected boiling point of pure material is in the range of 300-400 Celcius (570-750 F). No specific odor has been reported for pure material. Concentration is so low in product and intermediates that it does not appreciably change the nature, color or odor of these. It has been found up to 2000 PPM (0.2%) in some of our dried product.

**Effects of Overexposure:**

**Inhalation:** Extremely low volatility, inhalation unlikely except as a mist or on powder or other carrier.
**Short Term Exposure**: See effect of specific component exposed to.
**Long Term Exposure:** See effect of specific component exposed to.

**Skin Contact:**
**Short Term Exposure**: See effect of specific component exposed to.
**Long Term Exposure:** See effect of specific component exposed to.

**Eye Contact**
**Short Term Exposure**: See effect of specific component exposed to.
**Long Term Exposure:** See effect of specific component exposed to.

**Ingestion**
**Short Term Exposure**: See effect of specific component exposed to.
**Long Term Exposure:** See effect of specific component exposed to.

**Primary Routes of Exposure:** Inhalation ingestion.

**General Effects of Exposure:** Most common health effect of people exposed to large amounts of PCBs are skin conditions such as acne and rashes. Studies in exposed workers have shown changes in blood and urine that may indicate liver damage. Animals that ate large quantities had mild liver damage and some died. Animals that ate smaller amounts of PCBs in food over several weeks or months developed various kinds of health effects, including anemia, acne-like skin conditions; and liver , stomach, and thyroid gland injuries. Other effect of PCBs in animals include changes in immune system, behavioral alterations and impaired reproduction.

PCBs are not know to cause birth defects. However, PCBs are known to travel to breast milk and children may be exposed by that route.

The EPA and International Agency for Research on Cancer (IARC) have determined that PCBs are probably carcinogenic to humans. Most likely cancers to be caused by PCBs are liver and biliary.

**Normal Exposure:** PCBs have been in the environment for quite a while. Due to This the EPA has set limits on "acceptable" exposure. For example, the limit on drinking water is 0.5 microgram/liter. The FDA has set limits on various food groups which vary from 0.2 – 3 parts of PCBs per million parts (0.2-3 PPM) of food. Many states have established fish and wildlife consumption advisories for PCBs.

Agency for Toxic Substances and Disease Registry (ASTR) has set Minimal Risk Levels (MRL) guidelines for PCBs at which no appreciable risk of adverse noncancerous health risks. The levels for PCB is 0.03 mg/kg/day for up to a year and 0.02 mg/kg/day for exposures of a year or longer. For example, for a 80 kg (176 lb) person these would correlate to 2.4 mg/day up to a year or 1.6 mg/day for exposures a year or longer.

**NFPA Rating/PPE:** See component mixed with

Personal Protection = Standard PPE as per batch sheets. Wash any pigment off skin.

**Emergency and First Aid Procedures:**

| | |
|---|---|
| **1. Inhalation -** | See Emergency and First Aid Procedures for specific component (such as Thionyl chloride, orthodichlorobenzene, presscake, etc.) |
| **2. Eye Contact -** | See Emergency and First Aid Procedures for specific component (such as Thionyl chloride, orthodichlorobenzene, presscake, etc.) |
| **3. Skin Contact -** | See Emergency and First Aid Procedures for specific component (such as Thionyl chloride, orthodichlorobenzene, presscake, etc.) |
| **4. Ingestion -** | See Emergency and First Aid Procedures for specific component (such as Thionyl chloride, orthodichlorobenzene, presscake, etc.) |
| **5. Fire Fighting-** | See Emergency and First Aid Procedures for specific component (such as Thionyl chloride, orthodichlorobenzene, presscake, etc.) |
| **6. Spill or leak procedures-** | See Emergency and First Aid Procedures for specific component (such as Thionyl chloride, orthodichlorobenzene, presscake, etc.) |

Q3-1

Dick Fischer

05/24/1999 09:35 AM

To: David Brunetti/CLARIANT@CLARIANT
cc: Richard Castenson/CLARIANT@CLARIANT
Subject: dcb on dazn's

---------- Forwarded by Dick Fischer/CLARIANT on 05/24/99 09:26 AM ----------

Marlene Capraro
05/24/99 09:26 AM

To: Dick Fischer/CLARIANT@CLARIANT
cc:
Subject: dcb on dazn's


Dazndcb1.rtf Dazndcb2.rtf

open icons to view reports
marlene

Q3-2

# SAMPLE TEST RESULTS

**PRODUCT:** DAZN
**PRODUCT CODE:** 911205
**Lot #:** WO 2003
**REF.#:** 10840

Date Completed: 5/20/1999

| Test / Analysis | Results | Analyst Initial |
|---|---|---|
| GC FOR PCB'S<br>prepped by mc = 0.4220g<br>test for tetra & tri chloro pcb | nd < 1 ppm | SM |

**Quality Control / Analytical Dept.**
**May 24, 1999**

# SAMPLE TEST RESULTS

**PRODUCT:** DAZN
**PRODUCT CODE:** 911205
**Lot #:** 1698-128-2
**REF.#:** 10841

Date Completed: 5/20/1999

| Test / Analysis | Results | Analyst Initial |
|---|---|---|
| **GC FOR PCB'S** | **nd < 1 ppm** | SM |
| **prepped by mc = 0.4155g** | | |
| **test for tetra and trichloro pcb** | | |

**Quality Control / Analytical Dept.**
**May 24, 1999**

**Dick Fischer** 11/07/2000 01:12 PM

To: Richard Castenson/CLARIANT@CLARIANT, David Brunetti/CLARIANT@CLARIANT, Ralph Svenningsen/CLARIANT@CLARIANT
cc:
Subject: PCB results

Rich,

**Tetrachlorobiphenyl/Trichlorobiphenyl results**

| Comments | | Charlotte | Utah |
|---|---|---|---|
| REDACTED RESULTS OF UNRELATED TESTING | | | |
| Nov. Red BN D. Brunetti | 1726-85 | 11.58/1.16 | 1.8/ND |
| Nov. Red BN Pilot Plant | 1726-154 | 1.49/<0.2 | 6.5/ND |
| DAZN Methacrylamide | 1724-106-1 | 7.32/0.29 | 8.3/ND |
| DAZN " | 1724-106-2 | 8.87/0.40 | 6.8/ND |

Not bad agreement. Data Chem has a 3 page report which I shall bring to you.

Dick

Q4-1

DAZN monitoring results

| # | Sample | Source | Date Sample sent to lab | Results PPM |
|---|---|---|---|---|
| DAZN | DAZN USEA000669 | Azo | 8/22/2003 | 4.5 |
| DAZN | DAZN USEA000672 | Azo | 9/10/2003 | 4.1 |
| DAZN | DAZN USEA000674 | Azo | 8/22/2003 | 4.3 |
| DAZN | DAZN USEA000675 | Azo | 8/22/2003 | 2.6 |
| DAZN | DAZN 6303251 | Azo | 11/20/2000 | 5.1 |
| DAZN | DAZN 6303252 | Azo | 11/20/2000 | 7.9 |
| DAZN | DAZN 6303253 | Azo | 11/20/2000 | 5.4 |
| DAZN | DAZN 6303254 | Azo | 11/20/2000 | 5.3 |
| DAZN | DAZN 6303255 | Azo | 11/20/2000 | 4.8 |
| DAZN | DAZN 6303256 | Azo | 11/20/2000 | 4.9 |
| DAZN | DAZN 6303257 | Azo | 11/20/2000 | 2.5 |
| DAZN | DAZN 6312852 | Azo | 3/2/2001 | 8.6 |
| DAZN | DAZN 6312854 | Azo | 3/2/2001 | 8.4 |
| DAZN | DAZN 6312855 | Azo | 3/2/2001 | 6.1 |
| DAZN | DAZN 6312858 | Azo | 3/2/2001 | 7.9 |
| DAZN | DAZN 6312862 | Azo | 3/16/2001 | 5.6 |
| DAZN | DAZN 6312865 | Azo | 3/16/2001 | 2.2 |
| DAZN | DAZN 6312867 | Azo | 3/16/2001 | 14.8 |
| DAZN | DAZN 6312869 | Azo | 3/16/2001 | 6.6 |
| DAZN | DAZN 6312874 | Azo | 3/16/2001 | 3.2 |

Q4-2

## Samples of Red 144/214 sent for analysis

| # | Sample | Source | Date Sent | Date Received | Results PPM |
|---|---|---|---|---|---|
| **Original samples sent as part of QA Audit** | | | | | |
| 3B | Red 3B USEA000164 | Blend: tested in Charlotte | 6/20/2003 | 7/8/2003 | 502 |
| 3B | Red 3B USEA000165 | Blend: tested in Charlotte | 6/20/2003 | 7/8/2003 | 427 |
| 3B | Red 3B USEA000166 | Blend: tested in Charlotte | 6/20/2003 | 7/8/2003 | 386 |
| BNP | Red BNP US63268101 | Blend: tested in Charlotte | 6/20/2003 | 7/8/2003 | 76 |
| BNP | Red BNP US63268102 | Blend: tested in Charlotte | 6/20/2003 | 7/8/2003 | 116 |
| BNP | Red BNP US63268103 | Blend: tested in Charlotte | 6/20/2003 | 7/8/2003 | 108 |
| BNP | Red BNP US63268104 | Blend: tested in Charlotte | 6/20/2003 | 7/8/2003 | 203 |
| **Confirmation of original QA Audit results** | | | | | |
| 3B | Red 3B USEA000165 | Blend: tested in Germany | 7/15/2003 | 9/9/2003 | 600 |
| BNP | Red BNP 63385705 | Blend; tested in Germany | 7/15/2003 | 9/9/2003 | 660 |
| **Results from post discovery investigation** | | | | | |
| 3B | Red 3B USEA000302 | Blend: tested in Charlotte | 9/12/2003 | 9/14/2003 | 814 |
| 3B | Red 3B USEA000303 | Blend: tested in Charlotte | 9/12/2003 | 9/14/2003 | 843 |
| BNP | Red BNP 63385701 | Blend: tested in Charlotte | 9/12/2003 | 9/14/2003 | 557 |
| BNP | Red BNP 63385702 | Blend: tested in Charlotte | 9/12/2003 | 9/14/2003 | 389 |
| BNP | Red BNP 63385703 | Blend: tested in Charlotte | 9/12/2003 | 9/14/2003 | 700 |
| BNP | Red BNP 63385704 | Blend: tested in Charlotte | 9/12/2003 | 9/14/2003 | 596 |
| BNP | Red BNP 63385706 | Blend: tested in Charlotte | 9/12/2003 | 9/14/2003 | 666 |
| BNP | Red BNP MXSC313501 | Blend: tested in Charlotte | 9/12/2003 | 9/14/2003 | 455 |
| BNP | Red BNP MXSC313502 | Blend: tested in Charlotte | 9/12/2003 | 9/14/2003 | 415 |
| BNP | Red BNP US6319101 | Blend: tested in Charlotte | 9/15/2003 | 9/17/2003 | 19 |
| BNP | Red BNP US6319102 | Blend: tested in Charlotte | 9/15/2003 | 9/17/2003 | 34 |

Q4-3

Pigment 144/214 Analysis

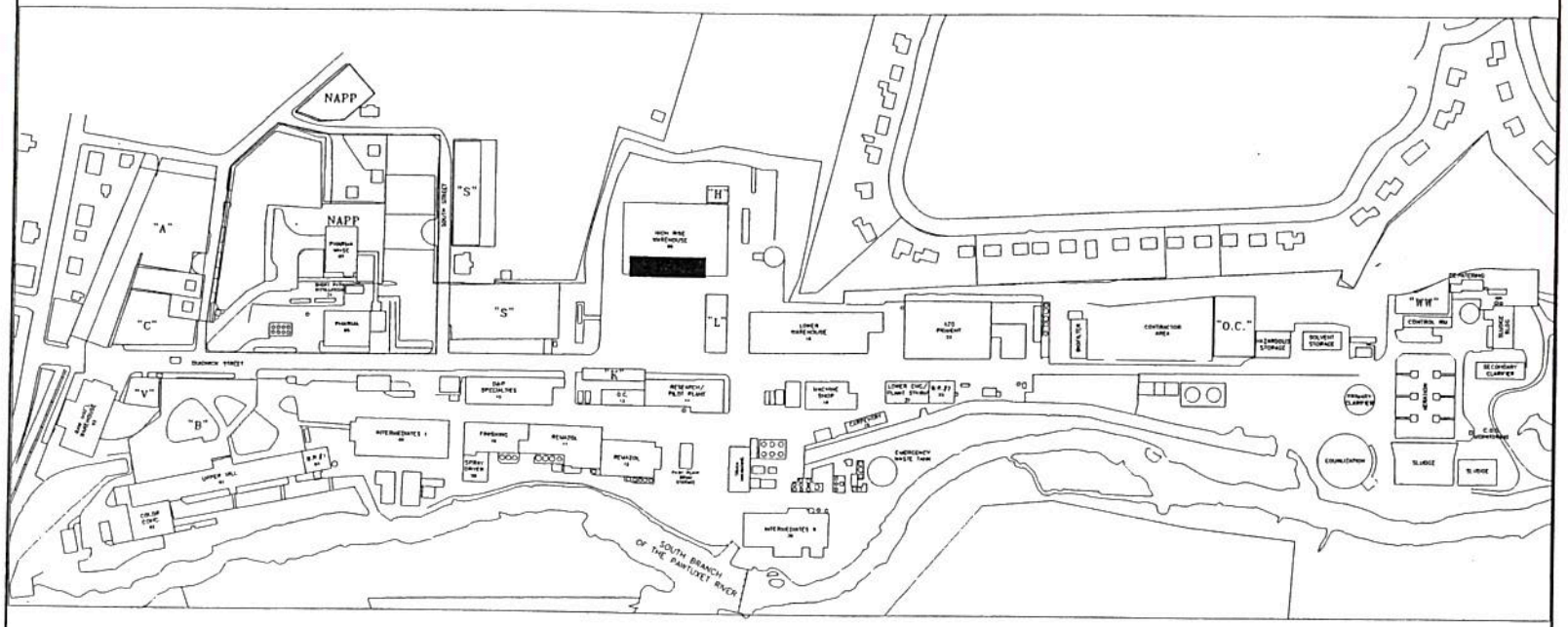
| | Samples sent for analysis | | | | |
|---|---|---|---|---|---|
| | | Production | | Date sent | Results |
| # | Sample | in SAP | source | to Lab | PPM |
| 1 | Red BNP 6213701 | 08/15/01 | Batch | 9/24/2003 | 20 |
| 2 | Red BNP 6213702 (9-2001) | 09/19/01 | Batch | 9/12/2003 | 22 |
| 3 | Red BNP 6213703 | 10/02/01 | Batch | 9/24/2003 | 43 |
| 4 | Red BNP 6213704 | 10/05/01 | Batch | 9/24/2003 | 32 |
| 5 | Red BNP 6213706 | 02/14/02 | Batch | 9/23/2003 | 107 |
| 6 | Red BNP 62253701 | 04/15/02 | Batch | 9/23/2003 | 47 |
| 7 | Red BNP 62253702 | 04/29/02 | Batch | 9/18/2003 | 113 |
| 8 | Red BNP 62253703 | 04/30/02 | Batch | 9/23/2003 | 52 |
| 9 | Red BNP 62253705 | 06/25/02 | Batch | 9/23/2003 | 108 |
| 10 | Red BNP 62253707 | 06/28/02 | Batch | 9/23/2003 | 119 |
| 11 | Red BNP 62253708 | 07/19/02 | Batch | 9/23/2003 | 102 |
| 12 | Red BNP 62253709 | 07/19/02 | Batch | 9/23/2003 | 280 |
| 13 | Red BNP 62253710 | 08/05/02 | Batch | 9/23/2003 | 104 |
| 14 | Red BNP 62253711 | 08/12/02 | Batch | 9/18/2003 | 82 |
| 15 | Red BNP 62253712 | 08/16/02 | Batch | 9/12/2003 | 255 |
| 16 | Red BNP 62253713 | 08/21/02 | Batch | 9/23/2003 | 85 |
| 17 | Red BNP 62253714 | 08/27/02 | Batch | 9/23/2003 | 87 |
| 18 | Red BNP 62253715 | 08/30/02 | Batch | 9/23/2003 | 112 |
| 19 | Red BNP 62253716 | 09/10/02 | Batch | 9/24/2003 | 146 |
| 20 | Red BNP 62253717 | 09/16/02 | Batch | 9/23/2003 | 180 |
| 21 | Red BNP 62253718 | 09/19/02 | Batch | 9/23/2003 | 424 |
| 22 | Red BNP 62253719 | 09/24/02 | Batch | 9/18/2003 | 528 |
| 23 | Red BNP 62253720 | 09/27/02 | Batch | 9/23/2003 | 237 |
| 24 | Red BNP 62253721 | 09/30/02 | Batch | 9/18/2003 | 248 |
| 25 | Red BNP 62253722 | 10/08/02 | Batch | 9/23/2003 | 323 |
| 26 | Red BNP 62253723 | 10/11/02 | Batch | 9/23/2003 | 335 |
| 27 | Red 3B 62254101 | 11/5/2002 | Batch | 9/23/2003 | 2034 |
| 28 | Red 3B 62254102 | 11/19/2002 | Batch | 9/23/2003 | 858 |
| 29 | Red 3B 62254103 | 11/19/2002 | Batch | 9/23/2003 | 606 |
| 30 | Red 3B 62254103 | 11/19/2002 | Batch | 9/18/2003 | 470 |
| 31 | Red 3B 62254104 | 12/3/2002 | Batch | 9/23/2003 | 277 |
| 32 | Red 3B 62254105 | 12/13/2002 | Batch | 9/23/2003 | 256 |
| 33 | Red 3B 62254106 | 12/18/2002 | Batch | 9/23/2003 | 476 |
| 34 | Red BNP 62313801 | 01/20/03 | Batch | 9/23/2003 | 555 |
| 35 | Red BNP 62313802 | 02/03/03 | Batch | 9/18/2003 | 619 |
| 36 | Red BNP 6R313803-EC | 02/24/03 | Batch | 9/10/2003 | 273 |
| 37 | Red BNP 6R313804-EC | 02/27/03 | Batch | 9/10/2003 | 213 |
| 38 | Red BNP 6R313805-C | 02/28/03 | Batch | 9/10/2003 | 182 |
| 39 | Red BNP 6R313805-EC | 02/28/03 | Batch | 9/10/2003 | 203 |
| 40 | Red BNP 6R313806-C | 03/11/03 | Batch | 9/10/2003 | 532 |
| 41 | Red BNP 6R313807-EC | 03/11/03 | Batch | 9/10/2003 | 239 |
| 42 | Red BNP 6R313808-EC | 03/17/03 | Batch | 9/10/2003 | 359 |
| 43 | Red BNP 6R313809-C | 03/18/03 | Batch | 9/10/2003 | 1061 |
| 44 | Red BNP 6R313810-C | 03/20/03 | Batch | 9/10/2003 | 421 |
| 45 | Red BNP 62313811 | 03/25/03 | Batch | 9/29/2003 | 493 |
| 46 | Red BNP 62313812 | 04/09/03 | Batch | 9/23/2003 | 115 |
| 47 | Red BNP 62313813 | 04/09/03 | Batch | 9/29/2003 | 296 |
| 48 | Red BNP 62313814 | 04/09/03 | Batch | 9/29/2003 | 532 |

Pigment 144/214 Analysis

| # | Sample | Production in SAP | source | Date sent to Lab | Results PPM |
|---|---|---|---|---|---|
| 49 | Red 3B 6R313701-EC | 4/28/2003 | Batch | 9/10/2003 | 824 |
| 50 | Red 3B 6R313702-EC | 5/2/2003 | Batch | 9/10/2003 | 130 |
| 51 | Red 3B 62313703 | 5/5/2003 | Batch | 9/23/2003 | 498 |
| 52 | Red 3B 6R313704-EC | 5/5/2003 | Batch | 9/10/2003 | 758 |
| 53 | Red 3B 6R313705-EC | 5/6/2003 | Batch | 9/10/2003 | 528 |
| 54 | Red 3B 6R313706-EC | 5/12/2003 | Batch | 9/10/2003 | 574 |
| 55 | Red 3B 6R313707-EC | 5/14/2003 | Batch | 9/10/2003 | 590 |
| 56 | Red BNP 62313816 | 05/19/03 | Batch | 9/12/2003 | 694 |
| 57 | Red BNP 62313817 | 05/28/03 | Batch | 9/12/2003 | 249 |
| 58 | Red BNP USEA000221 | 06/01/03 | Batch | 9/12/2003 | 171 |
| 59 | Red BNP USEA000222 | 06/07/03 | Batch | 9/12/2003 | 382 |
| 60 | Red BNP USEA000223 | 06/13/03 | Batch | 9/12/2003 | 183 |
| 61 | Red BNP USEA000232 | 06/21/03 | Batch | 9/29/2003 | 240 |
| 62 | Red BNP USEA000233 | 06/27/03 | Batch | 9/29/2003 | 501 |
| 63 | Red BNP USEA000234 | 07/03/03 | Batch | 9/29/2003 | 475 |
| 64 | Red BNP USEA000372 | 07/09/03 | Batch | 9/12/2003 | 180 |
| 65 | Red BNP USEA000373 | 07/15/03 | Batch | 9/12/2003 | 246 |
| 66 | Red BNP USEA000374 | 07/21/03 | Batch | 9/12/2003 | 304 |
| 67 | Red BNP USEA000375 | 07/27/03 | Batch | 9/12/2003 | 229 |
| 68 | Red 3B USEA000235 | 08/02/03 | Batch | 9/15/2003 | 101 |
| 69 | Red 3B USEA000238 | 08/08/03 | Batch | 9/15/2003 | 100 |
| 70 | Red 3B USEA000239 | 08/14/03 | Batch | 9/15/2003 | 35 |
| 71 | Red 3B USEA000240 | 08/20/03 | Batch | 9/15/2003 | 99 |
| 72 | Red 3B USEA000241 | 08/26/03 | Batch | 9/18/2003 | 116 |
| 73 | Red 3B USEA001421 | 09/01/03 | Batch | 9/18/2003 | 53 |
| 74 | Red 3B USEA001414 | 09/03/03 | Batch | 9/18/2003 | 39 |
| 75 | Red 3B USEA001416 | 09/06/03 | USEA0001416 lab filtered/dried from K2204 (1734-235-9) | 9/25/2003 | 37 |
| 76 | Red 3B USEA001415 | 09/08/03 | sample from press, lab dried | 9/25/2003 | 40 |

Q5-1

NORTH




**KEY:**

PCB Storage Area

| REV | DATE | DWN | APPD | DESCRIPTION |
|---|---|---|---|---|
| B | 9/00 | FJM | BH | ADDED & REVISED PARKING LOTS |
| A | 5/98 | JJM | SLF | ADDED NAPP PROPERTIES |

Clariant Corporation
Coventry Plant, 500 Washington St. Coventry R.I. 02816

| | BY | DATE |
|---|---|---|
| ORIG | MBB | 2/98 |
| DWN | JJM | 2/98 |
| APPD | MBB | 4/9/97 |

CIVIL
COMPOSITE
PARKING LOT PLAN
COVENTRY SITE
PLANT

DWG FILE NAME: C000500A

LAST EDIT DATE

DWG NO: B | C | 00 | 0500 | B | 1 OF 1

Q5-2

# CAUTION

**CONTAINS**

# PCBs

**(Polychlorinated Biphenyls)**

**A toxic environmental contaminant requiring special handling and disposal in accordance with U.S. Environmental Protection Agency Regulations 40 CFR 761 — For Disposal Information contact the nearest U.S. EPA Office**

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**In case of accident or spill, call toll free the U.S. Coast Guard National Response Center: 800:424-8802**

**Also Contact**

**Tel. No. ____** Security 823-2000

CARLTON INDU